

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Schwartz, *et al.*  
Serial No. 09/630,627  
Filed: August 1, 2000  
For: TRIPHOSPHATE OLIGONUCLEOTIDE  
MODIFICATION REAGENTS AND  
USES THEREOF  
Art Unit: 1645  
Examiner: Unassigned

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**INFORMATION DISCLOSURE STATEMENT IN ACCORDANCE  
WITH 37 C.F.R. §§ 1.97-1.98**

Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Since this Information Disclosure Statement is filed before the receipt of a first Office Action on the merits for the above-captioned application, no filing fee is due. If it is determined that a fee is due, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-1213.

In accordance with the duty of disclosure imposed by 37 C.F.R. §1.56 to inform the Patent Office of all references known by Applicant or Applicant's representative that may be material to the examination of the subject application, Applicant's representative hereby provides this Information Disclosure Statement that is prepared in accordance with 37 C.F.R. §§1.97-1.98. The Forms PTO-1449 (8 pages) and cited references are provided herewith.

The documents listed on the Forms PTO-1449 and supplied herewith are in the English language. Hence, in accordance with the requirements of 37 C.F.R. §1.98, as amended effective March 16, 1992, no further explanation of the listed items is necessary.

Applicant also makes known to the Examiner the following related, co-pending U.S. applications and their status:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Serial No. 09/630,627  
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For: TRIPHOSPHATE OLIGONUCLEOTIDE  
MODIFICATION REAGENTS AND  
USES THEREOF  
Art Unit: 1645  
Examiner: Unassigned

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**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT IN  
ACCORDANCE WITH 37 C.F.R. §§ 1.97-1.98**

Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

Since this Information Disclosure Statement is filed before the receipt of a first Office Action on the merits for the above-captioned application, no filing fee is due. If it is determined that a fee is due, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-1213.

In accordance with the duty of disclosure imposed by 37 C.F.R. § 1.56 to inform the Patent Office of all references known by Applicant or Applicant's representative that may be material to the examination of the subject application, Applicant's representative hereby provides this Information Disclosure Statement that is prepared in accordance with 37 C.F.R. §§ 1.97-1.98. The Forms PTO-1449 (5 pages) and cited references are provided herewith.

The documents listed on the Forms PTO-1449 and supplied herewith are in the English language, with the exception of item BH. Item BH (International PCT Publication, WO 00/40590) is in the French language but includes an English Abstract describing the subject matter. Hence, in accordance with the requirements of 37 C.F.R. § 1.98, as amended effective March 16, 1992, no further explanation of the listed items is necessary.

U.S.S.N. 09/630,027  
Schwartz *et al.*  
IDS

Applicant also makes known to the Examiner the following related, co-pending U.S. and International applications and their status:

<u>U.S.S.N.</u>	<u>Filing Date</u>	<u>Docket No.</u>
09/630,060	08/01/00	0751
09/815,978	03/22/01	0753
60/262,094	01/16/01	P755

<u>International App. No.</u>	<u>Filing Date</u>	<u>Docket No.</u>
	03/22/01	0753PC

Although these documents are made known to the Patent and Trademark Office in compliance with Applicant's duty of disclosure, such disclosure is not to be construed as an admission by Applicant or Applicant's representative that any of the references, singly or in any combination thereof, is effective as prior art against the subject application. In accordance with 37 C.F.R. § 1.97(h), the filing of this Supplemental Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 C.F.R. § 1.56(b) exists.

Applicant respectfully requests that the Examiner review the foregoing references and make them of record in the file history of the above-captioned application.

Respectfully submitted,  
HELLER EHRMAN WHITE & McAULIFFE LLP

By:

  
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Dated: May 9, 2001  
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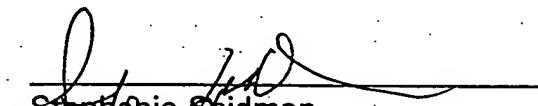
U.S.S.N. 09/630,027  
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<u>U.S.S.N</u>	<u>Filing Date</u>	<u>Docket No.</u>
09/630,060	08/01/00	0751

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Applicant respectfully requests that the Examiner review the foregoing references and make them of record in the file history of the above-captioned application.

Respectfully submitted,  
HELLER EHRLMAN WHITE & McAULIFFE LLP

By: 

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Dated: November 28, 2000  
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37154-752SERIAL NO.  
09/630,627LIST OF PATENTS AND PUBLICATIONS FOR  
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DISCLOSURE STATEMENTAPPLICANT  
Schwartz *et al.*FILING DATE  
August 1, 2000GROUP  
1645

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AA	4	8	3	3	2	5	1	05/23/89	Musso <i>et al.</i>	548	303	11/16/87
	AB	4	8	7	4	8	1	3	10/17/89	O'Shannessy	525	54.1	02/09/87
	AC	4	9	2	7	8	7	9	05/22/90	Pidgeon	525	54.1	10/24/88
	AD	4	9	3	1	4	9	8	06/05/90	Pidgeon	525	54.1	02/25/88
	AE	5	1	5	1	5	0	7	09/29/92	Hobbs, Jr. <i>et al.</i>	536	23	06/12/91
	AF	5	1	3	0	4	4	6	07/14/92	Musso <i>et al.</i>	549	223	03/14/89
	AG	5	2	1	0	2	0	3	05/11/93	Musso <i>et al.</i>	548	130	05/07/92
	AH	5	2	3	7	0	1	6	08/17/93	Ghosh <i>et al.</i>	525	329.4	01/05/89
	AI	5	2	4	2	7	9	6	09/07/93	Prober <i>et al.</i>	435	6	10/22/91
	AJ	5	4	7	4	8	9	5	12/12/95	Ishii <i>et al.</i>	435	6	11/14/91
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	AL	5	5	2	1	2	9	0	05/28/96	Sivam <i>et al.</i>	530	391.5	11/21/94
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	AP	5	7	8	9	5	7	6	08/04/98	Daily <i>et al.</i>	536	25.6	12/09/94
	AQ	5	7	9	2	6	1	5	08/11/98	Arnold <i>et al.</i>	435	6	03/06/97
	AR	5	8	3	7	8	5	6	11/17/98	Arnold, Jr. <i>et al.</i>	536	24.5	03/06/98
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	AT	5	8	5	4	4	1	0	12/29/98	Arnold, Jr. <i>et al.</i>	536	23.1	03/31/94
	AU	5	8	5	6	5	7	1	01/05/99	Berninger <i>et al.</i>	564	37	06/07/95
	AV	5	8	7	4	5	5	2	02/23/99	Jones <i>et al.</i>	536	22.1	05/08/95
	AW	5	8	7	7	2	2	0	03/02/99	Schwartz <i>et al.</i>	514	626	03/06/97
	AX	5	8	8	0	2	7	0	03/09/99	Berninger <i>et al.</i>	530	391.1	12/23/97

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LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT								ATTY. DOCKET NO. 37154-752	SERIAL NO. 09/630,627						
								APPLICANT Schwartz <i>et al.</i>							
								FILING DATE August 1, 2000	GROUP 1645						

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE
	AY	5	9	5	5	5	9	7	09/21/99	Arnold, Jr. <i>et al.</i>	536	24.3	06/30/97
	AZ	5	9	5	8	9	0	1	09/28/99	Dwyet <i>et al.</i>	514	75	06/05/96
	BA	6	0	0	1	8	2	6	12/14/99	Murrer <i>et al.</i>	514	183	07/20/92
	BB	6	0	2	0	5	2	6	02/01/00	Schwartz <i>et al.</i>	564	153	07/22/96
	BC	6	0	2	8	1	8	8	02/22/00	Arnold, Jr. <i>et al.</i>	536	25.3	11/21/94
	BD	6	0	3	4	1	3	5	03/07/00	Schwartz <i>et al.</i>	514	616	03/06/97
	BE	6	2	1	7	8	4	5	04/17/01	Schwartz <i>et al.</i>	424	1.69	11/06/97

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS	Translation Yes No
	BF	9	8	3	5	9	7	8	08/20/98	PCT			
	BG	0	0	0	8	0	4	2	02/17/00	PCT (A1)			
	BH	0	0	4	0	5	9	0	07/13/00	PCT (A2, A3)			X
	BI	0	1	0	9	3	8	5	02/08/01	PCT (A2)			

## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	BJ	Abrams <i>et al.</i> , Technetium-99m-Human Polyclonal IgG Radiolabeled via the Hydrazino Nicotinamide Derivative for Imaging Focal Sites of Infection in Rats, <i>The Journal of Nuclear Medicine</i> 31(12): 2022-8 (1990).
	BK	Agrawal, S. (Ed.), "Protocolss for Oligonucleotides and Analogs," <i>Methods in Molecular Biology</i> 20 (Humana Press)
	BL	Bischoff <i>et al.</i> , Introduction of 5'-Terminal Functional Groups into Synthetic Oligonucleotides for Selective Immobilization, <i>Anal. Biochem.</i> 164: 336-44 (1987).

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FORM PTO-1449 (Modified)		ATTY. DOCKET NO. 37154-752	SERIAL NO. 09/630,627
LIST OF PATENTS AND PUBLICATIONS FOR APPLICANT'S SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT		APPLICANT Schwartz <i>et al.</i>	
		FILING DATE August 1, 2000	GROUP 1645

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## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	BM	Browne, D.W. and G.M. Dyson, 47. The Inhibitory Effect of Substituents in Chemical Reactions. Part III. The Reactivity of the isoThiocyanato-group in Substituted Arylthiocarbimides, <i>J. Chem. Soc.</i> pgs. 178-9 (1924)
	BN	Chang <i>et al.</i> , Early Results in the International Design of New Bifunctional Chelators, <i>6th Conference on Radioimmunodetection and Radioimmunotherapy of Cancer -Supplement to Cancer</i> <u>80</u> : 2347-53 (1997).
	BO	Frutos <i>et al.</i> , Reversible Protection and Reactive Patterning of Amine- and Hydroxyl-Terminated Self-Assembled Monolayers on Gold Surfaces for the Fabrication of Biopolymer Arrays, <i>Langmuir</i> <u>16</u> : 2192-7 (2000).
	BP	Ghosh <i>et al.</i> , Covalent attachment of oligonucleotides to solid supports, <i>Nucl. Acids. Res.</i> <u>15</u> (3):5353-72 (1987).
	BQ	Ghosh <i>et al.</i> , Synthesis of 5'-Oligonucleotide Hydrazide Derivatives and Their Use in Preparation of Enzyme-Nucleic Acid Hybridization Probes, <i>Anal. Biochem.</i> <u>178</u> : 43-51 (1989).
	BR	Hakala <i>et al.</i> , Detection of Oligonucleotide Hybridization on a Single Microparticle by Time-Resolved Fluorometry: Hybridization Assays on Polymer Particles obtained by Direct Solid Phase Assembly of the Oligonucleotide Probes, <i>Bioconjugate Chem.</i> <u>8</u> : 378-84 (1997).
	BS	Hakala <i>et al.</i> , Detection of Oligonucleotide Hybridization on a Single Microparticle by Time-Resolved Fluorometry: Quantitation and Optimization of a Sandwich Type Assay, <i>Bioconjugate Chem.</i> <u>9</u> : 316-21 (1998).
	BT	Hogrefe, R.I., An Antisense Oligonucleotide Primer, <i>Antisense &amp; Nucleic Acid Drug Development</i> <u>9</u> : 351-7 (1999).
	BU	Hogrefe <i>et al.</i> , An Improved Method for the Synthesis and Deprotection of Methylphosphonate Oligonucleotides, <i>Chapter 7 in Methods in Molecular Biology</i> Vol. 20: <i>Protocols for Oligonucleotides and Analogs</i> Agrawal, S. (Ed.) Humana Press Inc., Totowa, NJ. pgs. 143-164 (1993).
	BV	Hnatowich <i>et al.</i> , Comparative Properties of a Technetium-99m-Labeled Single Stranded Natural DNA and a Phosphorothioate Derivative <i>in Vitro</i> and in Mice, <i>The Journal of Pharmacology and Experimental Therapeutics</i> <u>276</u> : 326-34 (1996).
	BW	Hnatowich, D.J., Pharmacokinetics of 99m Tc-labeled oligonucleotides, <i>Q J Nucl. Med.</i> <u>40</u> : 202-8 (1996).
	BX	Hnatowich <i>et al.</i> , Technetium-99m Labeling of DNA Oligonucleotides, <i>The Journal of Nuclear Medicine</i> <u>36</u> (12): 2306-14 (1995).

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		FILING DATE August 1, 2000	GROUP 1645

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## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	BY	Kaneko <i>et al.</i> , New Hydraone Derivatives of Adriamycin and Their Immunoconjugates--a Correlation between Acid Stability and Cytotoxicity, <i>Bioconjugate Chem.</i> <u>2</u> (3): 133-41 (1991).
	BZ	Kremsky <i>et al.</i> , Immobilization of DNA via oligonucleotides containing an aldehyde or carboxylic acid group at the 5' terminus, <i>Nucl. Acids. Res.</i> <u>15</u> (7): 2891-909 (1987).
	CA	Pidgeon <i>et al.</i> , Solid Phase Membrane Mimetics: Immobilized Artificial Membranes, <i>Enzyme Microb. Technol.</i> <u>12</u> : 149-50 (1990).
	CB	Reynolds <i>et al.</i> , Antisense oligonucleotides containing an internal non-nucleotide-based linker promote site-specific cleavage of RNA, <i>Nucl. Acids. Res.</i> <u>24</u> (4): 760-5 (1996).
	CC	Reynolds <i>et al.</i> , A Non-Nucleotide-Based Linking Method for the Preparation of Psoralen-Derivatized Methylphosphonate Oligonucleotides, <i>Bioconjugate Chem.</i> <u>3</u> : 366-74 (1992).
	CD	Reynolds <i>et al.</i> , Synthesis and thermodynamics of oligonucleotides containing chirally pure Rp methylphosphonate linkages, <i>Nucl. Acids. Res.</i> <u>24</u> (22): 4584-91 (1996).
	CE	Rogers <i>et al.</i> , Immobilization of Oligonucleotides onto a Glass Support via Disulfide Bonds: A Method for Preparation of DNA Microarrays, <i>Anal. Biochem.</i> <u>266</u> : 23-30 (1999).
	CF	Rusckowski <i>et al.</i> , Effect of Endogenous Biotin on the Applications of Streptavidin and Biotin in Mice, <i>Nuclear Medicine &amp; Biology</i> <u>24</u> :263-8 (1997).
	CG	Rusckowski <i>et al.</i> , Imaging Osteomyelitis with Streptavidin and Indium-111-Labeled Biotin, <i>J. Nuclear Medicine</i> <u>37</u> : 1655-62 (1996).
	CH	Rusckowski <i>et al.</i> , Pretargeting Using Peptide Nucleic Acid, <i>6th Conference on Radioimmunodetection and radioimmunotherapy of Cancer -Supplement to Cancer</i> <u>80</u> : 2699-705 (1997).
	CI	Salo <i>et al.</i> , Aminooxy Functionalized Oligonucleotides: Preparation, On-Support Derivatization, and Postsynthetic Attachment to Polymer Support, <i>Bioconjugate Chem.</i> <u>10</u> : 815-23 (1999).
	CJ	Salo <i>et al.</i> , Disulfide-Tethered Solid Supports for Synthesis of Photoluminescent Oligonucleotide Conjugates: Hydrolytic Stability and Labeling on the Support, <i>Bioconjugate Chem.</i> <u>9</u> : 365-71 (1998).
	CK	Schwartz <i>et al.</i> , Preparation of Hydrazino-Modified Proteins and Their Use for the Synthesis of 99m Tc-Protein Conjugates, <i>Bioconjugate Chem.</i> <u>2</u> :333-6 (1991).
	CL	Timofeev <i>et al.</i> , Regioselective immobilization of short oligonucleotides to acrylic copolymer gels, <i>Nucl. Acids. Res.</i> <u>24</u> (16): 3142-8 (1996).

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		FILING DATE August 1, 2000	GROUP 1645

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## OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	CM	Trevisiol <i>et al.</i> , The Oxyamino-Aldehyde Coupling Reaction: An Efficient Method for the Derivatization of Oligonucleotides, <i>Tetrahedron Letters</i> 38(50): 8687-90 (1997).
	CN	Trevisiol <i>et al.</i> , Synthesis of Nucleoside Triphosphate that Contain an Aminoxy Function for "Post-Ampification Labeling", <i>Eur. J. Org. Chem.</i> January 2000(N1): 211-7.
	CO	Watkins, T.I., 585. Trypanocides of the Phenanthridine Series. Part I. The Effect of Changing the Quaternary Grouping in Dimidium Bromide, <i>J. Chem. Soc.</i> pgs. 3059-64 (1952).

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER						DATE	NAME	CLASS	SUB CLASS	FILING DATE	
	AA	3	9	3	9	1	2	3	02/17/76	Matthews <i>et al.</i>	260	77.5	06/18/74
	AB	4	0	0	6	1	1	7	02/01/77	Merrifield	260	45.9	06/06/75
	AC	4	1	6	2	3	5	5	06/24/79	Tsibris	526	293	06/30/76
	AD	4	1	7	1	4	1	2	10/16/79	Coupek <i>et al.</i>	525	329	04/17/75
	AE	4	1	7	5	1	8	3	11/20/79	Ayers	536	57	05/24/78
	AF	4	1	7	7	0	3	8	12/04/79	Biebricher <i>et al.</i>	8	192	05/17/77
	AG	4	1	7	8	4	3	9	12/11/79	Ayers <i>et al.</i>	536	59	03/01/77
	AH	4	1	8	0	5	2	4	12/25/79	Reusser <i>et al.</i>	585	644	02/16/78
	AI	4	2	4	1	5	3	7	12/30/80	Wood	47	77	05/10/79
	AJ	4	3	3	7	0	6	3	06/29/82	Mihara <i>et al.</i>	23	230	03/03/80
	AK	4	4	0	4	2	8	9	09/13/83	Masuda <i>et al.</i>	436	538	09/02/81
	AL	4	4	0	5	7	1	1	09/20/83	Masuda <i>et al.</i>	435	4	09/02/81
	AM	4	4	3	9	5	8	5	03/27/84	Gould <i>et al.</i>	525	127	09/02/82
	AN	4	4	8	5	2	2	7	11/27/84	Fox	528	61	06/16/83
	AO	4	5	0	7	2	3	0	03/26/85	Tam <i>et al.</i>	260	112.5	05/12/82
	AP	4	5	6	9	9	8	1	02/11/86	Wenzel <i>et al.</i>	528	67	06/06/81
	AQ	4	6	8	3	2	0	2	07/28/87	Mullis	435	91	10/25/85
	AR	4	7	0	7	4	4	0	11/17/87	Stavrianopoulos	435	6	01/30/84
	AS	4	8	8	9	7	9	8	12/26/89	Rabbani	435	6	02/13/87
	AT	5	0	9	2	9	9	2	03/03/92	Crane <i>et al.</i>	210	198.2	05/17/91
	AU	5	2	0	6	3	7	0	04/27/93	Schwartz <i>et al.</i>	546	281	05/26/92
	AV	5	2	4	2	7	5	6	09/07/93	Hensel <i>et al.</i>	428	480	12/20/90
	AW	5	3	2	8	6	0	3	07/12/94	Velander <i>et al.</i>	210	198.2	08/19/92
	AX	5	3	3	4	6	4	0	08/02/94	Desai <i>et al.</i>	524	56	04/08/92

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	AY	5	3	8	9	4	4	9		02/14/95	Afeyan <i>et al.</i>	428	523	01/05/93
	AZ	5	4	0	3	7	5	0		04/01/95	Braatz <i>et al.</i>	436	531	04/08/91
	BA	5	4	2	0	2	8	5		05/30/95	Schwartz <i>et al.</i>	546	281	03/04/93
	BB	5	4	3	2	0	1	8		07/11/95	Dower <i>et al.</i>	435	5	06/20/91
	BC	5	4	8	6	6	1	6		01/23/96	Waggoner <i>et al.</i>	548	217	11/29/93
	BD	5	5	4	7	8	3	5		08/20/96	Koster	435	6	01/06/94
	BE	5	5	4	7	8	3	9		08/20/96	Dower <i>et al.</i>	435	6	12/06/90
	BF	5	5	5	6	7	5	2		09/17/96	Lockhart <i>et al.</i>	435	6	10/24/94
	BG	5	5	6	9	5	8	7		11/29/96	Waggoner <i>et al.</i>	435	6	04/19/95
	BH	5	5	6	9	7	6	6		10/29/96	Waggoner <i>et al.</i>	548	150	11/29/93
	BI	5	6	2	7	0	2	7		05/06/97	Waggoner	435	6	09/22/92
	BJ	5	7	4	1	4	6	2		04/21/98	Nova <i>et al.</i>	422	68.1	04/25/95
	BK	5	7	4	4	3	0	5		04/28/98	Fodor <i>et al.</i>	435	6	06/06/95
	BL	5	7	5	1	6	2	9		05/12/98	Nova <i>et al.</i>	365	151	06/07/95
	BM	5	7	5	3	5	2	0		05/19/98	Schwartz <i>et al.</i>	436	542	02/06/95
	BN	5	8	2	4	4	7	3		10/20/98	Meade <i>et al.</i>	435	6	06/07/95
	BO	5	8	7	4	2	1	4		02/23/99	Nova <i>et al.</i>	435	6	10/03/95
	BP	5	8	7	6	9	3	8		03/02/99	Stolowitz <i>et al.</i>	435	6	04/11/97
	BQ	5	9	2	5	5	6	2		07/20/99	Nova <i>et al.</i>	435	287.1	06/07/95
	BR	5	9	5	2	1	7	2		09/14/99	Meade <i>et al.</i>	435	6	06/12/97
	BS	5	9	6	1	9	2	3		10/05/99	Nova <i>et al.</i>	422	68.1	09/30/96
	BT	5	9	7	2	6	3	9		10/26/99	Parandoosh	435	29	07/24/97
	BU	6	0	1	7	4	9	6		01/25/00	Nova <i>et al.</i>	422	68.1	09/06/96
	BV	6	0	2	5	1	2	9		02/15/00	Nova <i>et al.</i>	435	6	12/05/95

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## U.S. PATENT DOCUMENTS

EXAMINER INITIAL		DOCUMENT NUMBER							DATE	NAME	CLASS	SUB CLASS	FILING DATE
	BW	6	0	6	6	4	4	8	05/23/00	Wohlstacter <i>et al.</i>	435	6	03/06/96
	BX	6	0	7	1	6	9	9	06/06/00	Meade <i>et al.</i>	435	6	06/19/98
	BY	6	0	7	4	8	2	3	06/13/00	Koster	435	6	11/06/96
	BZ	6	0	8	7	1	8	6	07/11/00	Cargill <i>et al.</i>	436	518	02/02/95

## FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER							DATE	COUNTRY	CLASS	SUB CLASS	Translation
	CA	0	0	0	4	3	8	9	01/27/00	PCT			
	CB	0	0	0	4	3	8	2	01/27/00	PCT			
	CC	0	0	0	4	3	9	0	01/27/00	PCT			
	CD	0	3	6	1	7	6	8	09/19/89	EP A2			
	CE	0	3	8	4	7	6	9	02/23/90	EP B1, A2			
	CF	0	7	7	2	1	3	5	06/26/96	EP A1			
	CG	9	8	1	5	8	2	5	04/16/98	PCT			
	CH	9	8	3	1	7	3	2	07/23/98	PCT			
	CI	9	9	6	5	9	9	3	12/23/99	PCT			

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CJ	"IUPAC-IUB Commission on Biochemical Nomenclature, Abbreviated Nomenclature of Synthetic Polypeptides (Polymerized Amino Acids), Revised Recommendations (1971)," <i>Biochem.</i> <u>11</u> (5): 942-4 (1972).
CK	Adleman <i>et al.</i> "Molecular Computation of Solutions to Combinatorial Problems," <i>Science</i> <u>266</u> : 1021-4 (1994).
CL	Agrawal, S. "Importance of nucleotide sequence and chemical modifications of antisense oligonucleotides," <i>Biochim. Biophys. Acta.</i> <u>1489</u> : 53-68 (1999).

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	CM	Berg <i>et al.</i> "Polystyrene-Grafted Polyethylene: Design of Film and felt Matrices for Solid-Phase Peptide Synthesis," <i>Innovation Perspect. Solid Phase Synth. Collect. Pap.</i> , Int. Symp., 1st, Epton R. (Ed.) pp.453-9 (1989).
	CN	Berg <i>et al.</i> "Long-Chain Polystyrene-Grafted Polyethylene Film Matrix: A New Support for Solid-Phase Peptide Synthesis," <i>J. Am. Chem. Soc.</i> <u>111</u> : 8024-6 (1989).
	CO	Berg <i>et al.</i> "Peptide Synthesis on Polystyrene-Grafted Polyethylene Sheets," <i>Pept. Proc. Eur. Pept. Symp.</i> , 20th, Jung, G. <i>et al.</i> (Eds.) pp. 196-8 (1989).
	CP	Bielinska <i>et al.</i> "Application of membrane-based dendrimer/DNA complexes for solid phase transfection in vitro and in vivo," <i>J. Biomaterials</i> <u>21</u> : 877-887 (2000).
	CQ	Blomqvist <i>et al.</i> "Rapid Detection of Human Rhinoviruses in Nasopharyngeal Aspirates by a Microwell Reserve Transcription-PCR-Hybridization Assay," <i>J. Clin. Microbiol.</i> <u>37</u> : 2813-6 (1999).
	CR	Brown, M.P. and Royer, C. "Fluorescence spectroscopy as a tool to investigate protein," <i>Curr. Opin. Biotechnol.</i> <u>8</u> : 45-9 (1997).
	CS	Carlsson, B. and Hagglad, J. "Quantitative Determination of DNA-Binding Parameters for the Human Estrogen Receptor in a Solid-Phase Nonseparation Assay," <i>Anal. Biochem.</i> <u>232</u> : 172-9 (1995).
	CT	Chen <i>et al.</i> "Stable-Isotope-Assisted MALDI-TOF Mass Spectrometry for Accurate Determination of Nucleotide Compositions of PCR Products," <i>J. Clin. Microbiol.</i> <u>37</u> : 3118-25 (1999).
	CU	Compagno <i>et al.</i> "Antisense Oligonucleotides Containing Modified Bases Inhibit <i>in Vitro</i> Translation of <i>Leishmania amazonensis</i> mRNAs by Invading the Mini-exon Hairpin," <i>J. Biol. Chem.</i> <u>274</u> : 8191-8 (1999).
	CV	Cristiano, R. J. and Roth, J.A. "Epidermal growth factor mediated DNA delivery into lung cancer cells via the epidermal growth factor receptor," <i>Cancer Gene Therapy</i> <u>3</u> : 4-10 (1996).
	CW	Crooke, S.T. "Molecular mechanisms of action of antisense drugs," <i>Biochim. Biophys. Acta.</i> <u>1489</u> : 31-44 (1999).
	CX	De Benedetti <i>et al.</i> "DNA chips: the future of biomarkers," <i>Int. J. Biol. Markers</i> <u>15</u> (1): 1-9 (2000).
	CY	Earnshaw <i>et al.</i> "Investigation of the Proposed Interdomain Ribose Zipper in Hairpin Ribozyme Cleavage Using 2'-Modified Nucleosides," <i>Biochemistry</i> <u>39</u> : 6410-21 (2000).
	CZ	Feinberg <i>et al.</i> "A Technique for Radiolabeling DNA Restriction Endonuclease Fragments to High Specific Activity," <i>Anal. Biochem.</i> <u>132</u> : 6-13 (1983).

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DA	Filippov <i>et al.</i> "Solid-Phase Ligation of Synthetic DNA Fragments," <i>Bioorg Khim.</i> <u>16</u> : 1045-51 (1990).
DB	Flanagan <i>et al.</i> "A cytosine analog that confers enhanced potency to antisense oligonucleotides," <i>Proc. Natl. Acad. Sci. USA</i> <u>96</u> : 3513-8 (1999).
DC	Frutos <i>et al.</i> "Demonstration of a word design strategy for DNA computing on surfaces," <i>Nucl. Acids Res.</i> <u>25</u> : 4748-57 (1997).
DD	Frutos <i>et al.</i> "Enzymatic Ligation Reactions of DNA 'Words' on Surfaces for DNA Computing," <i>J. Am. Chem. Soc.</i> <u>120</u> (40): 10277-82 (1998).
DE	Fujita, K. and Silver, J. "Surprising Lability of Biotin-Streptavidin Bond During Transcription of Biotinylated DNA Bound to Paramagnetic Streptavidin Beads," <i>Biotechniques</i> <u>14</u> (4): 608-17 (1993).
DF	Gottschalk <i>et al.</i> "Efficient gene delivery and expression in mammalian cells using DNA coupled with perfringolysin O," <i>Gene Therapy</i> <u>2</u> : 498-503 (1995).
DG	Greene, T.W. and Wuts, P.G.M. (Eds.) <i>Protective Groups in Organic Synthesis</i> 3rd ed. (J. Wiley & Sons, Inc.) (1999).
DH	Gryaznov, S.M. "Oligonucleotide N3' -> P5' phosphoramidates as potential therapeutic agents," <i>Biochim. Biophys. Acta</i> <u>1489</u> : 131-40 (1999).
DI	Hermanson <i>et al.</i> <i>Immobilized Affinity Ligand Techniques</i> (Academic Press, Inc., San Diego) 1992.
DJ	Hoganson <i>et al.</i> "Targeted Delivery of DNA Encoding Cytotoxic Proteins through High-Affinity Fibroblast Growth Factor Receptors," <i>Human Gene Therapy</i> <u>9</u> : 2565-75 (1998).
DK	Hostomsky <i>et al.</i> "Solid-phase assembly of DNA duplexes from synthetic oligonucleotides," <i>Nucl. Acid. Symp. Ser.</i> <u>18</u> : 241-244 (1987).
DL	Hultman <i>et al.</i> "Solid-phase cloning to create sublibraries suitable for DNA sequencing," <i>J. Biotechnol.</i> <u>35</u> : 229-38 (1994).
DM	Kari, L. "DNA Computing: Arrival of Biological Mathematics," <i>Mathematical Intelligencer</i> <u>19</u> : 9-22 (1997).
DN	Kent, S.B.H. and Merrifeld, R.B. Preparation and Properties of <i>tert</i> -Butyloxycarbonylaminocarbonyl-4-(oxymethyl)phenylacetamidomethyl-(Ket F-g-styrene) Resin, an Insoluble, Noncrosslinked Support for Solid Phase Peptide Synthesis," <i>Isr. J. Chem.</i> <u>17</u> : 243-7 (1978).

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	DO	Kozwich <i>et al.</i> "Development of a Novel, Rapid, Integrated <i>Cryptosporidium parvum</i> Detection Assay," <i>Appl. Environ. Microbiol.</i> <u>66</u> (6): 2711-7 (2000)
	DP	Kumar, Abhay <i>et al.</i> "Nonradioactive Labeling of Synthetic Oligonucleotide Probes with Terminal Deoxynucleotidyl Transferase," <i>Anal. Biochem.</i> <u>169</u> : 376-82 (1988).
	DQ	Lannutti <i>et al.</i> "Probing the Protein - DNA Contacts of a Yeast RNA Polymerase III Transcription Complex in a Crude Extract: Solid Phase Synthesis of DNA Photoaffinity Probes Containing a Novel Photoreactive Deoxycytidine Analog," <i>Biochemistry</i> <u>35</u> : 9821-31 (1996).
	DR	Lee <i>et al.</i> "Direct Measurement of the Forces Between Complementary Strands of DNA," <i>Science</i> <u>266</u> : 771-3 (1994).
	DS	Lees <i>et al.</i> "Activation of soluble polysaccharides with 1-cyano-4-dimethylaminopyridinium tetrafluoroborate for use in protein-polysaccharide conjugate vaccines and immunological reagents," <i>Vaccine</i> <u>14</u> : 190-8 (1996).
	DT	Liu <i>et al.</i> "DNA computing on surfaces," <i>Nature</i> <u>403</u> : 175-9 (2000).
	DU	Liu <i>et al.</i> "Progress toward demonstration of a surface based DNA computation: a one word approach to solve a model satisfiability problem," <i>BioSystems</i> <u>52</u> : 25-33 (1999).
	DV	Liu <i>et al.</i> "DNA Computing on Surfaces: Encoding Information at the Single Base Level," <i>J. Comp. Biol.</i> <u>5</u> : 269-278 (1998).
	DW	Lu <i>et al.</i> "Antisense DNA Delivery In Vivo: Liver Targeting by Receptor-Mediated Uptake," <i>J. Nucl. Med.</i> <u>35</u> : 269-75 (1994).
	DX	Maeji <i>et al.</i> "Grafted supports used with the multipin method of peptide synthesis," <i>Reactive Polymers</i> <u>22</u> : 203-12 (1994).
	DY	Marble <i>et al.</i> "RNA Transcription from Immobilized DNA Templates," <i>Biotechnol. Prog.</i> <u>11</u> : 393-6 (1995).
	DZ	Merrifeld, R.B. "Solid-Phase Peptide Synthesis. III. An Improved Synthesis of Bradykinin," <i>Biochemistry</i> <u>3</u> : 1385-90 (1964).
	EA	Mitchell <i>et al.</i> "Preparation of Aminomethyl-Polystyrene Resin by Direct Amidomethylation," <i>Tetrahedron Lett.</i> <u>42</u> : 3795-8 (1976).
	EB	Mitchell, A.R., Kent S.B.H. <i>et al.</i> "A New Synthetic Route to <i>tert</i> -Butyloxycarbonylaminocetyl-4-(oxymethyl)phenylacetamidomethyl-resin, an Improved Support for Solid-Phase Synthesis," <i>J. Org. Chem.</i> <u>43</u> : 2845-52 (1978).

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	EC	Morishita, R. "Oligonucleotide-based therapy as a potential new pharmacotherapy," <i>Folia Pharmacol. Jpn. (Nippon Yakurigaku Zasshi)</i> <u>115</u> : 123-30 (2000).
	ED	Muddiman <i>et al.</i> "Length and Base Composition of PCR-Amplified Nucleic Acids Using Mass Measurements from Electrospray Ionization Mass Spectrometry," <i>Anal. Chem.</i> <u>69</u> (8): 1543-1549 (1997).
	EE	Mustajoki <i>et al.</i> "Steady-State Transcript Levels of the Porphobilinogen Deaminase Gene in Patients with Acute Intermittent Porphyria," <i>Genome Res.</i> <u>7</u> : 1054-60 (1997).
	EF	Niemeyer <i>et al.</i> "Oligonucleotide-directed self-assembly of proteins: semisynthetic DNA-streptavidin hybrid molecules as connectors for the generation of macroscopic arrays and the construction of supramolecular bioconjugates," <i>Nucl. Acids Res.</i> <u>22</u> (25): 5530-9 (1994).
	EG	Perales <i>et al.</i> "An evaluation of receptor-mediated gene transfer using synthetic DNA-ligand complexes," <i>Eur. J. Biochem.</i> <u>226</u> : 255-66 (1994).
	EH	Pinkel <i>et al.</i> "Cytogenetic analysis using quantitative, high-sensitivity, fluorescence hybridization," <i>Proc. Natl. Acad. Sci. USA</i> <u>83</u> : 2934-8 (1986).
	EI	Powers <i>et al.</i> "Protein Purification by Affinity Binding to Unilamellar Vesicles," <i>Biotechnol. Bioeng.</i> <u>33</u> : 173-82 (1989).
	EJ	Reed, M.A. and Tror, J.M. "Computing with Molecules," <i>Scientific American</i> (June 2000) pp. 86-93
	EK	Rigby <i>et al.</i> "Labeling Deoxyribonucleic Acid to High Specific Activity <i>in Vitro</i> by Nick Translation with DNA Polymerase I," <i>J. Mol. Biol.</i> <u>113</u> : 237-51 (1977).
	EL	Roth, A. and Messer, W. "The DNA binding domain of the initiator protein," <i>EMBO J.</i> <u>14</u> : 2106-11 (1995).
	EM	Salles <i>et al.</i> "DNA damage excision repair in microplate wells with chemiluminescence detection: Development and perspectives," <i>Biochimie</i> <u>81</u> : 53-8 (1999).
	EN	Shafer, D.E., Lees, A. <i>et al.</i> "Activation of soluble polysaccharides with 1-cyano-4-dimethylaminopyridinium tetrafluoroborate (CDAP) for use in protein-polysaccharide conjugates vaccines and immunological reagents. II. Selective crosslinking of proteins to CDAP-activated polysaccharides," <i>Vaccine</i> <u>18</u> : 1273-81 (2000).
	EO	Shirota <i>et al.</i> "Regulation of Murine Airway Eosinophilia and Th2 Cells by Antigen-Conjugated CpG Oligodeoxynucleotides as a Novel Antigen-Specific Immunomodulator," <i>J. Immunol.</i> <u>164</u> : 5575-82 (2000).

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	EP	Smith <i>et al.</i> "A Surface-Based Approach to DNA Computation," <i>J. Comp. Biol.</i> <u>5</u> (2): 255-67 (1998).
	EQ	Verheijen <i>et al.</i> "Incorporation of a 4-Hydroxy-N-acetylprolinol Nucleotide Analogue Improves the 3'-Exonuclease Stability of 2'- 5'- Oligoadenylate-Antisense Conjugates," <i>Bioorg. Med. Chem. Lett.</i> <u>10</u> : 801-4 (2000).
	ER	Wang <i>et al.</i> "Surface-based DNA computing operations: DESTROY and READOUT," <i>BioSystems</i> <u>52</u> : 189-91 (1999).

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